

Example 3

Match each description with the appropriate area or line segment on the diagram.

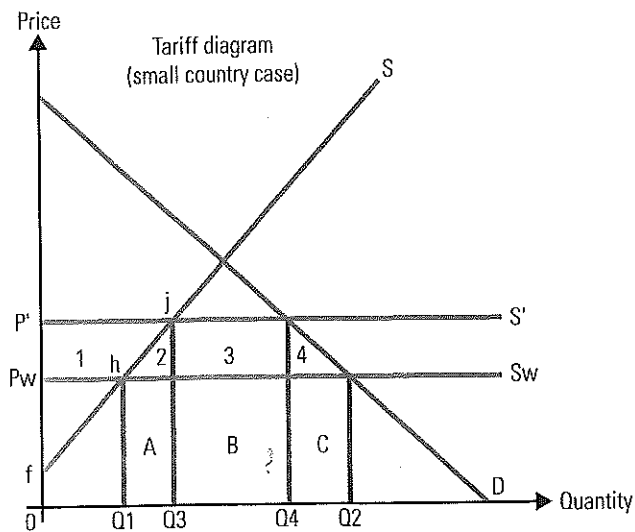


Figure 3.4

- | | |
|---|-----------------------|
| 1 Volume of imports under free trade | a Area(1 + 2 + 3 + 4) |
| 2 Tariff revenues | b Area(A + B + C) |
| 3 Volume of imports following tariff | c Line segment (fhSw) |
| 4 Decrease in consumer surplus as a result of the tariff | d Area(2) and area(4) |
| 5 Value of imports after tariff is imposed (and export revenues collected by foreign producers after tariff is imposed) | e Line segment (Q1Q2) |
| | f Line segment (PwP') |
| 6 Increase in producer surplus as a result of the tariff | g Area(B) and area(3) |
| 7 Supply of the good under free trade | h Area(B) |
| 8 Welfare loss as a result of the tariff | i Area(2) |
| 9 Production inefficiency as a result of the tariff | j Line segment (Q3Q4) |
| 10 Supply of the good after the tariff is imposed | k Area(3) |
| 11 Consumption inefficiency as a result of the tariff | l Line segment (fjS') |
| 12 Value of imports under free trade (and export revenues foreign producers collect under free trade) | m Area(1) |
| 13 Size of the tariff imposed | n Area(4) |
| 14 Consumer spending on the good after the tariff is imposed | |

Exercise 5

Assume that a tariff is imposed on good X. Answer the following questions using the information in the diagram below.

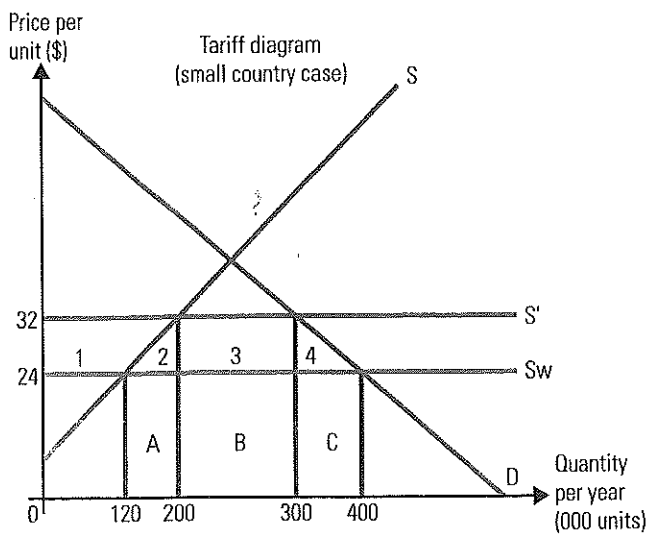


Figure 3.7

- 1 What is the size of the tariff imposed?
- 2 Calculate the pre-tariff volume of imports.
- 3 Calculate the value of imports (i.e. import expenditures on the good or export revenues of the foreign firms) under free trade.
- 4 Calculate the revenues earned by domestic producers under free trade.
- 5 Calculate consumer expenditures on the good under free trade.
- 6 Calculate the post-tariff volume of imports and their change.
- 7 Calculate import expenditures after the tariff was imposed and the change that occurred as a result of the tariff.
- 8 How much did consumers spend on the good after the tariff was imposed?
- 9 The money spent by consumers after the tariff was imposed was collected by foreign exporters, domestic producers and the government. Calculate how much each group collected.
- 10 What is the resulting production inefficiency equal to?
- 11 Calculate the resulting decrease in the consumer surplus.

Exercise 6

Assume that Mexico imposes a quota on the imports of good X. Answer the following questions using the information in the diagram below.

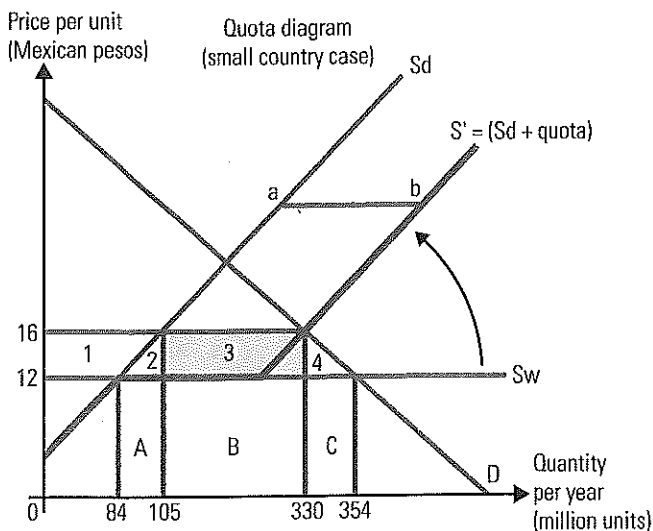
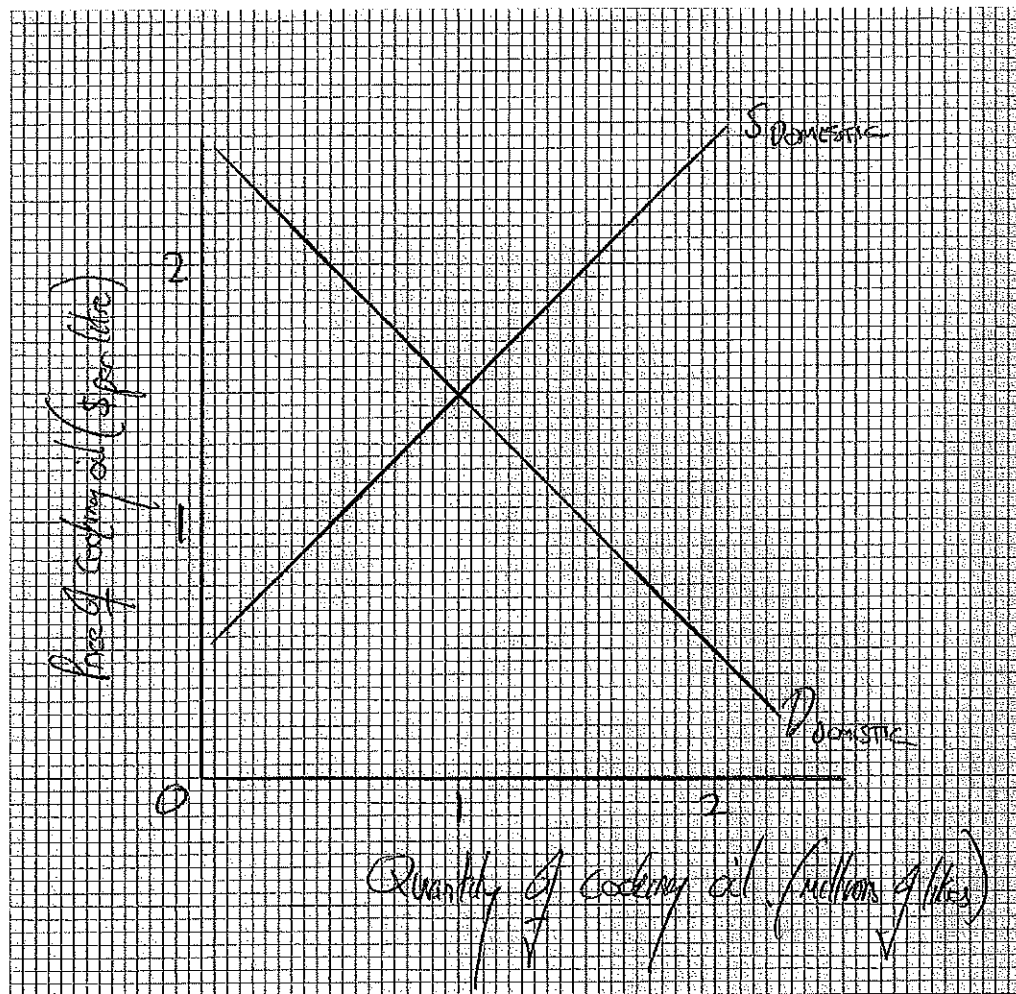


Figure 3.8

- 1 What is the size of the quota imposed?
- 2 Calculate the value of imports (i.e. import expenditures on the good or export revenues of the foreign firms) under free trade.
- 3 Calculate the revenues earned by domestic producers under free trade.
- 4 Calculate consumer expenditures on the good under free trade.
- 5 Calculate the change in the volume of imports as a result of the quota.
- 6 Calculate import expenditures after the quota was imposed and the change that occurred as a result of the quota.
- 7 How much did consumers spend on the good after the quota was imposed?
- 8 Calculate the size of the quota rents. Who earns these rents?
- 9 Calculate the resulting decrease in the consumer surplus.
- 10 What is the resulting production inefficiency equal to?
- 11 Calculate the resulting consumption inefficiency.

Question 2:

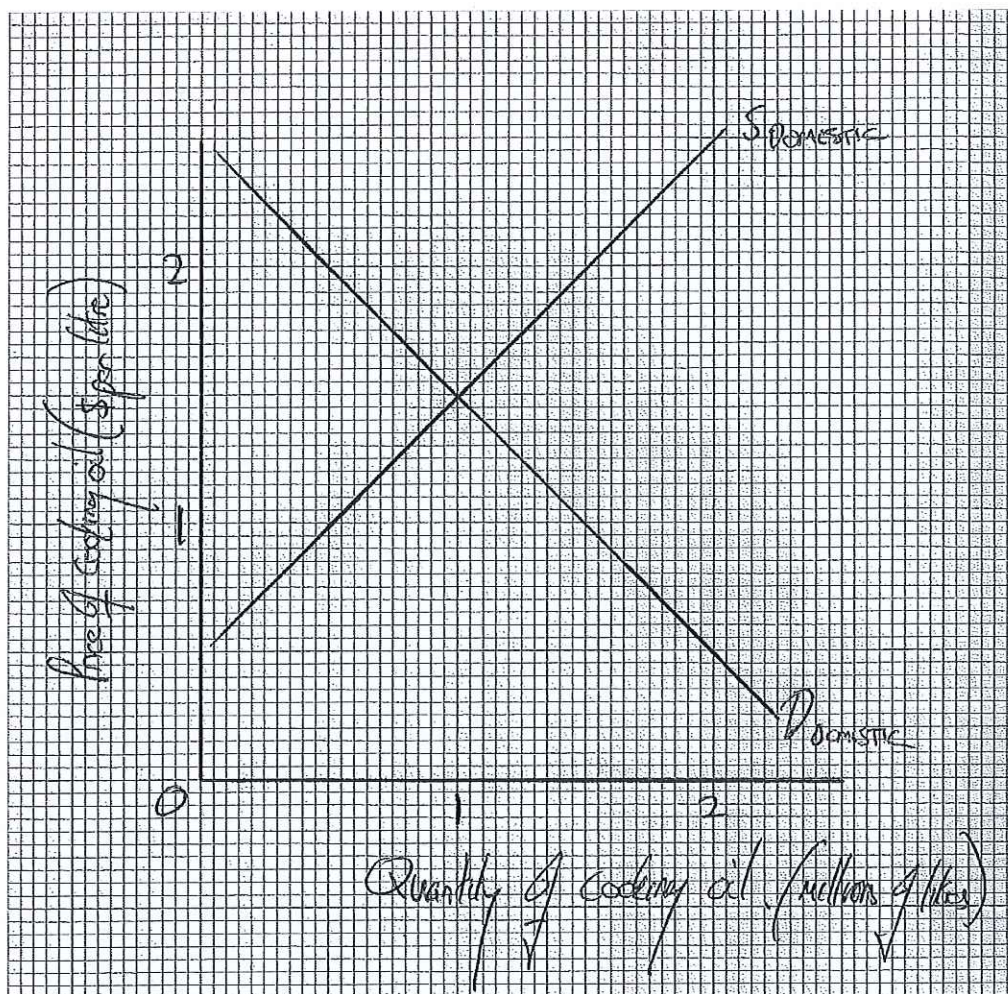
- The graph below shows the market for cooking oil in a country.



- Indicate the domestic equilibrium price and quantity on the graph. **(1 mark)**
- Cooking oil may be imported. The world price is \$1 per litre. Add the world supply curve to the graph. **(2 marks)**
- Determine how much cooking oil will be supplied by domestic suppliers and how much will be supplied by foreign producers when free trade takes place. **(3 marks)**
- The government imposes a tariff of 30 cents per litre. Show the effects of this on the volume of imports on the graph. **(3 marks)**
- Calculate the change in consumer spending before and after the imposition of the tariff. **(3 marks)**
- Calculate the government tax revenue after the tariff is put in place. **(2 marks)**
- Explain the impact of the tariff on any two of the stakeholders in the cooking oil market. **(4 marks)**

Question 3:

2. The graph below shows the market for cooking oil in a country.



1. Indicate the domestic equilibrium price and quantity on the graph. **(2 marks)**
2. Calculate total consumer spending before imports are in the market. **(2 marks)**
3. Cooking oil may be imported. The world price is \$1 per litre. Add the world supply curve to the graph. **(2 marks)**
4. Explain why domestic producers will reduce their production after the entry of foreign producers to the market. **(2 marks)**
5. The government gives domestic producers a subsidy of 40 cents per litre. Show the effects of this on the graph. **(2 marks)**
6. Calculate the change in revenue of foreign producers when the subsidy is given **(3 marks)**
7. Calculate the cost to the government of the total subsidy. **(2 marks)**

Quantitative analysis: Subsidy

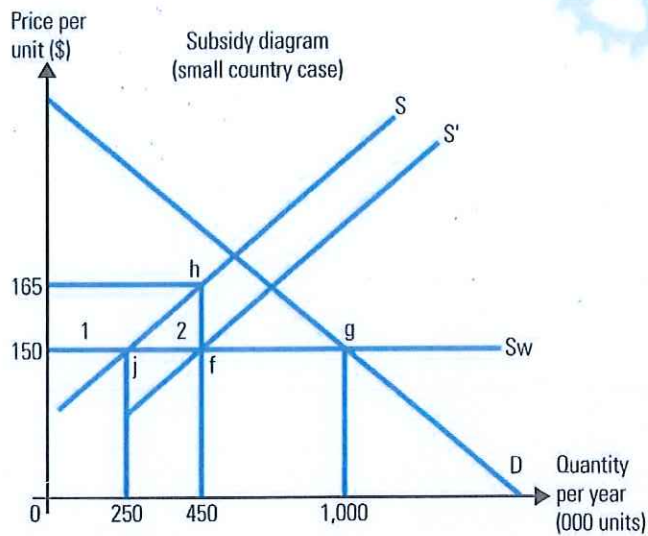


Figure 3.6

1. What is the size of the subsidy granted on a per unit basis?
2. Calculate the value of imports under free trade.
3. Calculate the annual revenues earned by domestic producers under free trade.
4. Calculate consumer expenditure under free trade.
5. Calculate the change in the volume of imports after the subsidy is imposed.
6. Calculate the change in import expenditure after the subsidy.
7. Calculate the total revenue domestic firms collect after the subsidy.
8. Calculate the cost to the government of the subsidy
9. Calculate the change in consumer surplus
10. Calculate the change in producer surplus.
11. What is the resulting production inefficiency equal to?
12. Calculate the resulting consumption inefficiency.